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Raffaele Pera

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EXAMINER

WRIGHT, BRYAN F

ART UNIT

PAPER NUMBER

2431

NOTIFICATION DATE

DELIVERY MODE

09/15/2010

ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

PATDOCTC@fr.com

Office Action Summary	Application No. 10/534,679	Applicant(s) PERA ET AL.	
	Examiner BRYAN WRIGHT	Art Unit 2431	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 28 January 2010.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-3 and 5-23 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-3 and 5-23 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

A request for continued examination under 37 CFR 1.114 was filed in this application after appeal to the Board of Patent Appeals and Interferences, but prior to a decision on the appeal. Since this application is eligible for continued examination under 37 CFR 1.114 and the fee set forth in 37 CFR 1.17(e) has been timely paid, the appeal has been withdrawn pursuant to 37 CFR 1.114 and prosecution in this application has been reopened pursuant to 37 CFR 1.114. Applicant's submission filed on 1/28/2010 has been entered. Claims 1 and 8 are amended. Claim 4 is cancelled. Claim 23 is new. Claims 1-3 and 5-23 are pending.

Claim Rejections - 35 USC § 112

The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

1. Claims 1 and 8 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. The Examiner contends applicant's newly amended claim limitation of "identifying, by the handling application through one or more dynamic libraries associated with

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the handling application, one or more remote electronic instruments in a network of a plurality of electronic instruments including the instrument through corresponding certification codes uniquely associated with each of the one or more remote electronic instruments”, lacks support of the applicant’s original disclosure.

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 1 and 8 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. The Examiner contends that applicant's newly amended subject matter of: "at least one dynamic library associated with the handling application, the handling application operable to identify, through the dynamic library, one or more remote electronic instruments in a network of electronic instruments including the instrument through corresponding certification codes uniquely associated with each of the one or more remote electronic instruments”, is vague and indefinite.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which

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said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

1. Claims 1, 3-7, and 12-16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Finley et al. (US Patent No. 6,442,448 and Finley hereinafter) in view of Carapelli (US Patent No. 6,119,110).

2. As to claim 1, Finley teaches a control system of an electronic instrument for metrological measurements, comprising: a handling application operable to control the instrument [col. 7, lines 59-67; col. 8, lines 1-25]; and a control application activated through the dynamic library operable to verify integrity of said handling application (i.e., ... teaches an approved stamp version for verifying software application certification [col. 23, lines 55-65]).

at least one dynamic library (e.g., DLL) associated with the handling application (e.g., communication junction), the handling application operable to identify (e.g., communication), through the dynamic library (e.g., DLL), one or more remote electronic instruments (e.g., communicating with network devices) in a network of electronic instruments including the instrument through corresponding certification codes uniquely associated with each of the one or more remote electronic instruments [120, figure 1];

Finley does not expressly teach the claim limitation element of: said control application operable to generate a certification code the handling application in response to verifying that the integrity of the handling application is maintained.

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However, these features are well known in the art and would have been an obvious modification of the system disclosed by Finley as introduced by Carapelli. Carapelli discloses: said control application operable to generate a certification code (e.g., visual indication of non-tampered software) the handling application in response to verifying that the integrity of the handling application (e.g., software) is maintained (to provide visual indication of software tampering [col. 4, lines 28-31]).

Therefore, given Finley ability maintain software version information and detect software tampering, a person having ordinary skill in the art at the time of the invention would have recognized the desirability and advantage to of modifying Finley to provide visual evidence that the software was not tampered with by employing the well known feature visually indicating if a particular piece of software has been tampered with as disclosed by Carapelli.

3. As to claim 3, Finley teaches control system where said control application and said handling application are communicably coupled via a network [fig. 14].

4. Claim 4, (cancelled)

5. As to claim 5, Finley teaches a control system where said dynamic library is locally stored (col. 10, lines 10-20).

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6. As to claim 6, Finley teaches a control system where said dynamic library is situated in said central processing unit (col. 7, lines 50-55).

7. As to claim 7, Finley teaches a control system where said univocal (i.e., having only one possible value) code is obtained using a cryptography algorithm (col. 23, lines 59-62).

8. As to claim 12, Finley teaches a system where the controller is further operable to generate an alert in response to determining a violation of the integrity of the handling application [col. 24, lines 45-55].

9. As to claim 13, Finley teaches a system where the violation comprises an unregistered modification of the handling application (i.e., .. teaches an error in which the system has been tampered with [col. 20, lines 20-30]).

10. As to claim 14, Finley teaches a system where the controller is further operable to prevent the handling application from operating in response to determining the violation [col. 15, lines 40-50].

11. As to claim 15, Finley teaches a system where the controller is further operable to verify whether a certification associated with the handling application (e.g., firmware) is valid (col. 4, lines 15-25).

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12. As to claim 16, Finley teaches a system where the certification is verified using a digital signature [col. 20, lines 15-30].

13. Claims 8-11 and 17-22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Carapelli in view of Finley.

14. As to claim 8, Carapelli teaches a method for monitoring an electronic instrument for metrological measurements, comprising: receiving (e.g., loaded) information (e.g., keys) associated with a handling application (e.g., microprocessor firmware) for the instrument and locally stored [col. 3, lines 55-60], the handling operation (i.e., firmware/software) operable to control the instrument (i.e., ...teaches software in the head of the measuring device [col. 1, lines 40-50] the software controlling the measuring device), issuing a certification code associated with the handling application (e.g., microprocessor firmware) based on the information and operable to indicate that integrity of the handling application (e.g., microprocessor firmware) has been maintained [col. 4, lines 15-35].

Carapelli does not expressly teach applicant's newly amended claim limitation of at least one dynamic library associated with the handling application, the handling application operable to identify, through the dynamic library, one or more remote electronic instruments in a network of electronic instruments including the instrument through corresponding certification codes uniquely

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associated with each of the one or more remote electronic instruments; However at the time of applicant's original filing prior art reference Finley disclosed a communication junction interface program for communicating (e.g. identifying) remote devices (e.g., network devices). The communication junction interface program is associated with a specific DLL. See Finley figure 1, figure element 120, figure 1.

Therefore, given Carapelli ability maintain software version information and detect software tampering, a person having ordinary skill in the art at the time of the invention would have recognized the desirability and advantage to of modifying Carapelli to enhance device communication with the well known feature providing a interfacing program to communicate (e.g., identifying) with network devices as disclosed by Finley.

15. As to claim 9, Carapelli teaches a method where producing a code includes processing said information using a cryptography algorithm (e.g., DES encryption [col. 3, lines 30-35]).

16. As to claim 10, Carapelli teaches a method where tile received information comprises an authenticity certificate (e.g., private key) of the handling application (col. 4, lines 15-25).

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17. As to claim 11, Carapelli teaches a method according where tile received information comprises an acknowledgement code (e.g., input code) of said instrument (col. 4, lines 25-32).

18. As to claim 17, Carapelli teaches a method further comprising: determining a violation (e.g., tampered) of the integrity of the handling application [col. 4, lines 29-32]; and generating an alert in response to the violation [col. 4, lines 20-35].

19. As to claim 18, the system disclosed by Carapelli shows substantial features of the claimed invention (discussed in the paragraph above), it fails to disclose: A method further comprising preventing the handling application from operating in response to determining the violation. However, these features are well known in the art and would have been an obvious modification of the system disclosed by Carapelli as introduced by Finley. Finley discloses: A method further comprising preventing (e.g., not allowing the operating system to boot) the handling application from operating in response to determining the violation (to provide means to prevent further operation of tampered detected firmware [col. 20, lines 20-27]). Therefore, given the teachings of Finley, a person having ordinary skill in the art at the time of the invention would have recognized the desirability and advantage of modifying Carapelli by employing the well known features of certification for certifying software code on a measuring instrument

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disclosed above by Finley, for which user measuring device software authentication will be enhanced [col. 4, lines 15-35]).

20. As to claim 19, Carapelli teaches a method further comprising: determining that a certification associated with the handling application (e.g., firmware) is invalid [col. 4, line 15- 25];and generating an alert in response to the determining the invalidity [col. 4, lines 20-35].

21. As to claim 20, Carapelli teaches a method further comprising generating a stamp (e.g., code) indicating that the integrity of the handling application (e.g., firmware) is verified (col. 4, lines 25-32).

22. As to claim 21, Carapelli teaches a method where the information is received at the start of the handling application (e.g., firmware) [fig. 2].

23. As to claim 22, Carapelli teaches a method where the cryptography algorithm comprises one of a Secure Hash Algorithm (SHA) hashing algorithm or an RSA hashing algorithm (i.e., ...teaches a non-reversible cryptographic process in [col 3, lines 30-35]).

24. Claims 2 and 23 are rejected under 35 U.S.C. 103(a) as being unpatentable over Finely in view of Carapelli as applied to claim 1 above, and further in view of Johnson (US Patent No. 6904592).

25. As to claim 2, the system disclosed by the combination of Finley in view of Carapelli shows substantial features of the claimed invention (discussed in the paragraph above), it fails to disclose: A control system where said code is associated with a stamp comprising an issuing date of said stamp a reference code of the metrological measurement instrument, and a barcode corresponding to said code. However, these features are well known in the art and would have been an obvious modification of the system disclosed by the combination of Finley and Carapelli as introduced by Johnson. Johnson discloses: A control system where said code is associated with a stamp comprising an issuing date of said stamp a reference code of the metrological measurement instrument, and a barcode (e.g., record) corresponding to said code (to provide a record of software maintenance [372,374, fig. 5]). Therefore, given the teachings of Johnson, a person having ordinary skill in the art at the time of the invention would have recognized the desirability and advantage of modifying the combination of Finley and Carapelli by employing the well known features of a software down record disclosed above by Johnson, for which user measuring device software maintenance will be enhanced [col. 4, lines 15-35]).

26. As to claim 23, Finley teaches a control system of an electronic instrument for metrological measurements, comprising: a handling application operable to control the instrument [col. 7, lines 59-67; col. 8, lines 1-25]; and a control application activated through the dynamic library operable to verify integrity of

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said handling application (i.e., ... teaches an approved stamp version for verifying software application certification [col. 23, lines 55-65]).

Finley does not expressly teach the claim limitation element of: said control application operable to generate a certification code the handling application in response to verifying that the integrity of the handling application is maintained. However, these features are well known in the art and would have been an obvious modification of the system disclosed by Finley as introduced by Carapelli. Carapelli discloses: said control application operable to generate a certification code (e.g., visual indication of non-tampered software) the handling application in response to verifying that the integrity of the handling application (e.g., software) is maintained (to provide visual indication of software tampering [col. 4, lines 28-31]).

Therefore, given Finley ability maintain software version information and detect software tampering, a person having ordinary skill in the art at the time of the invention would have recognized the desirability and advantage to of modifying Finley to provide visual evidence that the software was not tampered with by employing the well known feature visually indicating if a particular piece of software has been tampered with as disclosed by Carapelli.

The system of Finley and Carapelli do not expressly teach applicant's claim limitation element of wherein the certification code is associated with a stamp

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comprising an issuing date of said stamp, a reference code of the metrological measurement instrument, and a barcode corresponding to said code. However, these features are well known in the art and would have been an obvious modification of the system disclosed by the combination of Finley and Carapelli as introduced by Johnson. Johnson discloses: certification code is associated with a stamp comprising an issuing date of said stamp, a reference code of the metrological measurement instrument, and a barcode corresponding to said code (to provide a record of software maintenance [372,374, fig. 5]). Therefore, given the teachings of Johnson, a person having ordinary skill in the art at the time of the invention would have recognized the desirability and advantage of modifying the combination of Finley and Carapelli by employing the well known features of a software down record disclosed above by Johnson, for which user measuring device software maintenance will be enhanced [col. 4, lines 15-35]).

Response to Arguments

With regards to applicant's newly added subject matter of "at least one dynamic library associated with the handling application, the handling application operable to identify, through the dynamic library, one or more remote electronic instruments in a network of electronic instruments including the instrument through corresponding certification codes uniquely associated with each of the one or more remote electronic instruments", the Examiner contends that applicant's specification lack supports for this newly amended subject matter. As such the Examiner could not properly reference applicant's specification to

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determine the scope of the limitation for the purpose of conducting a prior art search. Therefore the Examiner utilized the standard teaching of DLL(s) and firmware teachings as known in the art. At best the Examiner understands the claim limitation to be directed towards a resident program with associated DLLs for which has the ability to communicate (e.g., identify) with different devices connected via bus. Base on this interpretation the Examiner has cited the teachings of Finley. See rejection above.

Contact Information

Any inquiry concerning this communication or earlier communications from the examiner should be directed to BRYAN WRIGHT whose telephone number is (571)270-3826. The examiner can normally be reached on 8:30 am - 5:30 pm Monday -Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, William Korzuch can be reached on (571) 272-7589. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/BRYAN WRIGHT/
Examiner, Art Unit 2431
/Syed Zia/
Primary Examiner, Art Unit 2431